RUSH RECORD

Fall 2003

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Finding a seizure's focus

Less invasive surgeries for treating the spine

Early detection and an array of treatments help more men beat prostate cancer

and more...

BOYS WILL BE BOYS

Promoting more freedom for children with hemophilia

RUSH RECORD
Fall 2003

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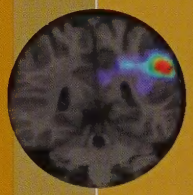

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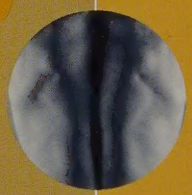

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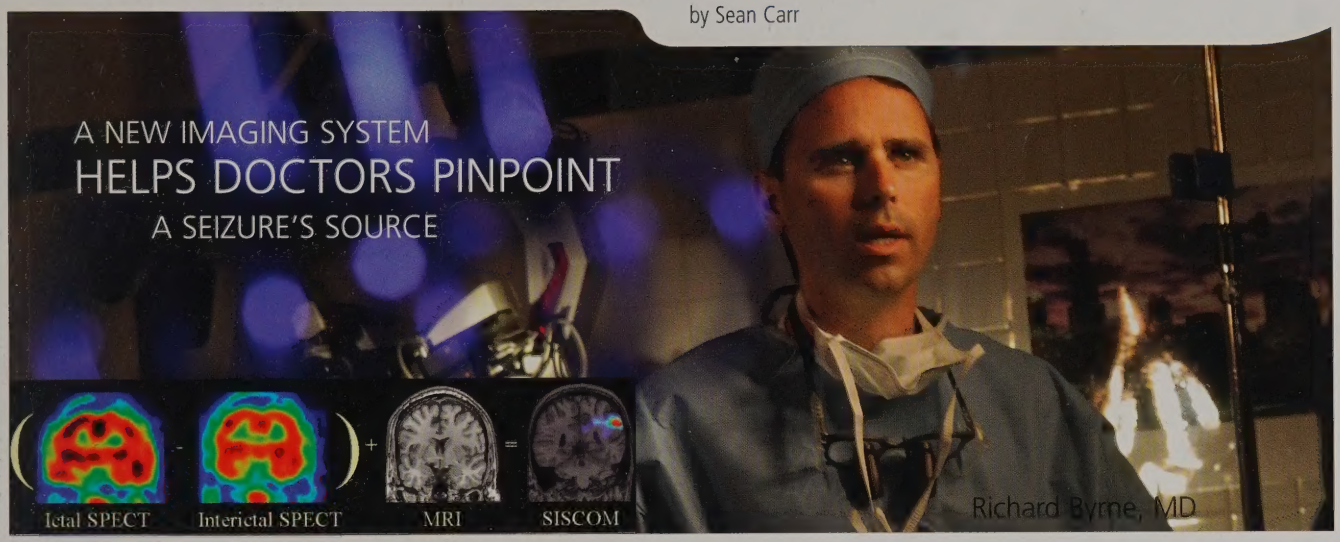
Finding the FOCUS

by Sean Carr



Photography by Andrew Campbell

Most people with epilepsy use medication to control their seizures. But almost a third of the two million Americans with the condition are drug-resistant. No medication sufficiently manages their seizures, which can take many forms, from a blank stare to violent spasms, and last anywhere from a few seconds to several minutes. Surgery is an option, but only when doctors can locate the malfunctioning area in the brain where seizures originate — their focus. Remove the focus, and the seizures disappear, or at least decrease in severity and frequency.

But a seizure's focus can be hard to find. Fortunately, a new diagnostic technique refined at RUSH, and available at only two other medical centers in the country, is helping doctors pinpoint the source of seizures in patients who, only a couple of years ago, couldn't be helped.

For years, doctors were limited to electrical testing — the traditional EEG — and MRI. More recently, when those tests failed to provide enough information to act on, neurologists have performed a SPECT (single photon emission computed tomography) scan. A radioactive tracer injected into the patient shows how different areas of the brain are functioning, possibly highlighting brain tissue that has been damaged by a tumor, infection, stroke or head injury, or that, for some unknown reason, simply isn't working right.

"In about 40 to 50 percent of cases, we can see a seizure's source," says Marvin Rossi, MD, a neurologist at the RUSH Epilepsy Center. "Sometimes it's enough to operate on, but it could be better."

SISCOM is better. A new imaging system that combines SPECT and MRI technology, it improves the clarity of what can be seen in the epileptic brain.

With SISCOM, neurologists perform two SPECT scans — one when the patient is having a seizure and another when the patient is not. The two scans are then combined on the computer and everything but the area showing the greatest change in activity between the seizing and non-seizing states is removed from the scan.

"We've turned this invisible seizure source into something visible," Rossi says.

But there's still another step. The combined SPECT scans are merged with the patient's MRI, giving doctors a three-dimensional picture of the seizure focus and its position in the brain. That image can then be imported into a surgical guidance system, providing neurosurgeons a detailed map to follow when removing the damaged tissue.

The ability to transfer SISCOM data between systems is just one of the refinements worked out at RUSH. Rossi and his team have also automated the early steps of the process so that the tracer can be injected within seconds after a seizure begins. This eliminates the necessity of having someone at the patient's bedside, syringe at the ready, for hours at a time. More important, it gives doctors a much sharper picture of the seizure's focus.

Eventually, that will make epilepsy surgery less invasive. Today, it actually requires two separate operations. In the first, electrodes are placed in the brain to verify where and when a seizure is occurring and to tell doctors which still-functioning tissue needs to be left alone. Only in the second operation, sometimes days later, is any tissue removed. But because of the picture that SISCOM is giving them, doctors now implant fewer electrodes, reducing the risk of infection and stroke. As doctors gain more confidence in what SISCOM is telling them, they hope to eliminate the electrode placement — and the need for the first surgery — altogether.

That's still down the road, Rossi says. For now, he and his colleagues at RUSH are more than happy with what SISCOM is already making possible.

"It has led to some great success stories," Richard Byrne, MD, a neurosurgeon at RUSH, says. "Some patients who we couldn't do anything for are now seizure free."•

by Sean Carr

Cutting BACK

What could back surgery possibly have in common with a paper cut? A lot more than it used to.

"We've been getting more sophisticated in how we perform our surgeries," says John Ratliff, MD, assistant professor of neurosurgery and section chief of spine and peripheral nerve surgery at RUSH. "Instead of making six- or eight-inch-long incisions, we're able to do so much now through just a little half-inch or even a quarter-inch incision."

Frank Phillips, MD, who recently joined RUSH as professor of orthopedic surgery and director of the Section of Minimally Invasive Spine Surgery, explains. "Essentially, the goal is to do the same operation we have always done, but to minimize the surgical assault in getting down to the spine," he says.

Phillips, Ratliff and other spine surgeons at RUSH have made, and are continuing to make, huge strides in minimally invasive surgeries for the spine. Thanks to new techniques and new technologies, they have shrunk the size of their incisions — from the length of a very large hand to shorter than the distance between the joints on your pinkie. And thanks to new discoveries in the lab, they are doing away with some cutting altogether. It's all aimed at making a painful surgery less so for patients who have already experienced more than their share of pain.

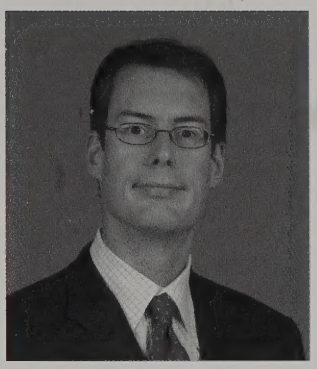
That pain often starts with the spaces between the vertebrae, the 24 individual bones that make up the spinal column. Sitting in these spaces and cushioning each vertebra from the next are the intervertebral discs. When these flattened pouches slip out of place, or when they rupture, spilling some of their jelly-like contents into the surrounding space, they can put pressure on the spinal cord or on one of the nerve roots that branch off the spinal cord between each set of vertebrae. Ninety percent of the time, this happens in the lower part of the spine, the lumbar region. So the result is low back pain. Or, more often, the radiating pain of sciatica, since this is where the sciatic nerve branches out before traveling down the leg.

Fortunately, most herniated discs improve without surgery. With anti-inflammatory medication, stretching and appropriate physical activity, symptoms will clear up within four to six weeks, if not sooner. But if they last any longer, a surgery to remove the disc (or the part of the disc pressing on the nerve) — discectomy — may have to be considered. Traditionally, that surgery has entailed a large incision, several days in the hospital and weeks of painful recovery.

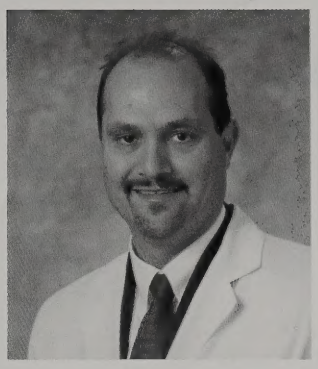
During the last decade, however, and especially over the last two or three years, surgeons at RUSH and a select number of academic medical centers around the country have been thinking smaller, shorter, gentler.

A smaller incision is just the beginning. Once through the surface of the skin, Ratliff uses a special dilating instrument to gradually widen the surgical opening — think of a pyramid being built from the top down — as he works his way through the muscle to the spine. This gives him the space he needs to remove the offending disc (or pieces of it).

During the last decade, and especially over the last two or three years, spine surgeons at RUSH have been thinking smaller, shorter, gentler.



John Ratliff, MD



Frank Phillips, MD

But this approach, by gently dividing the muscle instead of ripping it away from the bone (as would be done in the traditional, "open" procedure), also helps Ratliff limit the trauma to the patient, which means less postoperative pain and a quicker recovery.

"We perform discectomies where the patient basically goes home the same day as the surgery — within 23 hours," Ratliff says.

Sometimes, though, removing the disc is not enough. Some back problems, and the resulting pain, are due to spinal instability or bone pressing on a nerve or the spinal column itself. In these cases and a few others, if the pain is severe and long lasting, spinal fusion — occasionally in conjunction with a procedure to clear away bone growths — can be an appropriate surgical treatment to stabilize the spine.

In spinal fusion, the disc is removed and bone fragments are packed in the space it occupied between two unstable vertebrae. Over time, the fragments help the vertebrae to grow together, fusing them permanently. Recovery from a traditional spinal fusion can be extremely painful, and it can take months. But minimally invasive approaches to this surgery have also advanced in recent years.

Some surgeons, including Phillips at RUSH, take what at first seems a surprising approach to back fusion: they go in through the front. Inserting a laparoscope through a one-inch incision in the abdomen, Phillips is able to view the spine on a television monitor. He then performs the entire procedure, from cleaning out the disc to placing the bone fragments or other fusing materials or devices, through a couple other incisions of equally short length. Once again, the traditional large incision is rendered unnecessary. Best of all: "You're not touching the back muscles at all, which is a huge advantage," Phillips says.

For some fusions, he will need to turn the patient over so he can place screws and rods in the vertebrae to hold them in place (like splints) while the bone grows together. This part of the procedure, which has shrunk along with the other spine surgeries, can now be performed through two tiny holes, leaving the back and the important spinal muscles relatively untouched.

That leaves only one problem: getting the bone fragments for the fusion. For the best results, doctors typically get this bone from the patient's hip. That requires yet another incision, and studies have shown that this procedure can be more painful than the fusion itself. Nearly a third of patients continue to experience some hip pain even two years after surgery. The fragments for the fusion can be taken from a donor, but the results aren't usually as good as with the patient's own bone.

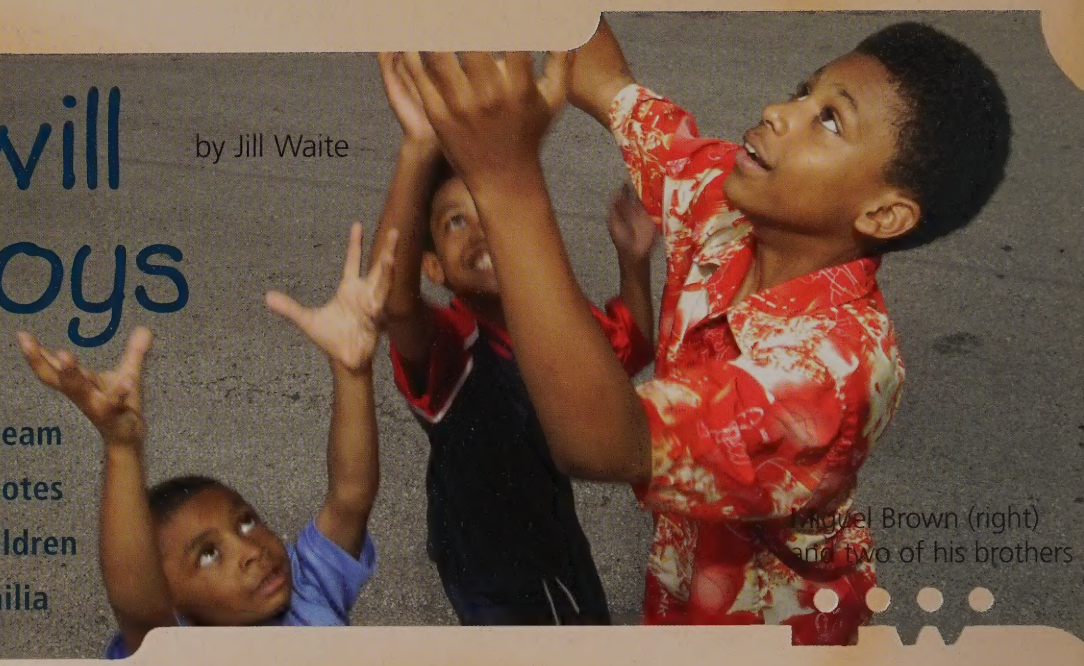
So doctors at RUSH are working to avoid that painful hip procedure while still getting results that compare to those they get using the patient's own bone. Today, they are using, in place of real bone, a genetically engineered version of a naturally occurring protein that spurs bone growth in the spine. Phillips and other spine surgeons at RUSH were among the select group of participants in the pilot studies that led to the Food and Drug Administration's approval of this material for use in fusions performed solely through the abdomen. Ratliff is now studying the synthetic protein's effectiveness in fusions performed through the back that require pins and rods for extra stability. It's yet another step toward the best back surgery possible.

"Everybody hurts to some degree right after the surgery," Ratliff says. "And at the end of six months, everyone, no matter what kind of surgery they've had, should have recovered. The real key is those first two to six weeks. With minimally invasive surgery, instead of being in the hospital for a week, patients are in the hospital for two or three days. Instead of a few months, they're feeling back to normal — they're getting back to work — two weeks out from surgery. With minimally invasive surgery, people get better faster." •

Boys will be boys

by Jill Waite

A multidisciplinary team of specialists promotes more freedom for children with hemophilia



Miguel Brown (right) and two of his brothers

Photography by Andrew Campbell

Two years ago, 10-year-old Miguel Brown dreamed of playing basketball. But unlike the millions of other kids able to pursue their athletic dreams, Miguel found himself benched by painful swelling in his knees due to a bleeding disorder known as hemophilia B.

He needed crutches just to get from one room to the next, making jump shots and lay-ups impossible. "He couldn't run even short distances, let alone the length of a basketball court," says his father, David. And because even the slightest physical contact could cause deadly bleeding, the bumping and jostling that are a normal part of the game seemed to ensure that Miguel would never get a shot at his dream.

But Miguel's parents wanted more for their son. Despite their concerns about his safety and well-being, they wanted him to experience the same rites of boyhood that their three other sons enjoyed. He should, they felt, be able to be a boy.

So they brought him to RUSH, where, thanks to an innovative collaborative approach to managing hemophilia in children, Miguel, for the first time in two years, walked without the aid of crutches. At RUSH, his reveries of sinking three pointers and "playing the zone" moved from dream to possibility.

A team approach

Hemophilia, an inherited disorder associated with a gene carried by the mother, affects 18,500 people in the United States. The condition, which is mostly found in boys and varies in severity, is caused by a lack of a clotting factor in the blood. Miguel, who has a more rare form of the disease known as hemophilia B, has a deficiency of factor IX. When a child with hemophilia is injured — whether it's from falling off a bike or simply from flossing his teeth too vigorously — bleeding may not stop for long periods, with uncontrolled internal bleeding causing pain, swelling and permanent damage, especially to joints and muscles. It was this kind of bleeding that forced Miguel to live with crutches.

Improvements in treatment and how it's delivered have created a degree of freedom for thousands of children with hemophilia. Yet RUSH is one of the few programs to advocate an active lifestyle — within reason — for children with the disease. "Most hemophilia centers will limit a child's or adolescent's activity," says Leonard Valentino, MD, a hematologist and director of RUSH's Hemophilia and Thrombophilia Center, the largest center of its kind in Illinois. "Our goal is the opposite. We encourage maximum participation, while keeping our patients safe."

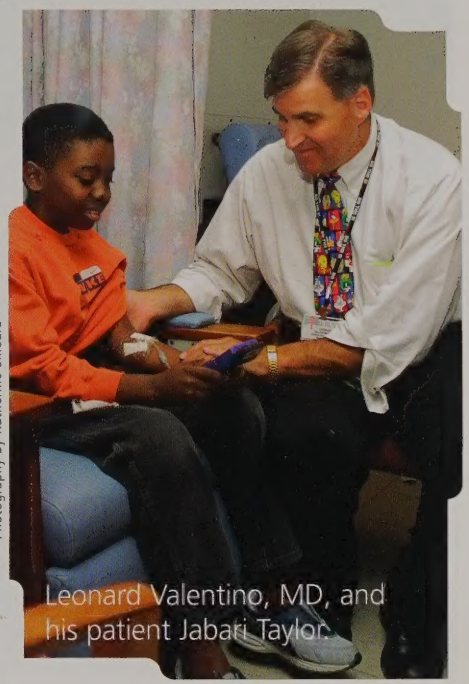
What gives Valentino the confidence to promote an active lifestyle for these kids is the team of health care specialists he has assembled to support them.

"Because everyone on our multidisciplinary team knows each other so

well, we really do provide the best imaginable care for these kids," says Jeffrey Sawyer, MD, the orthopedic surgeon who operated on Miguel.

According to Sawyer, the hematologist who Miguel saw before coming to RUSH did not have immediate access to other specialists, such as orthopedic surgeons. As part of RUSH Children's Hospital, RUSH's hemophilia specialists meet weekly, if not more often. At RUSH, the Browns found not only a hematologist and an orthopedic surgeon with experience operating on children with hemophilia, they found a slew of other specialists: a social worker, a dentist, a psychologist and a geneticist, as well as anesthesiologists experienced in pediatric hemophilia. They all collaborated to develop Miguel's treatment plan. For example, the team's psychologist, Warren Rosen, PhD, advised Sawyer on when to perform Miguel's surgery. "With kids, timing is extremely important because we want them to miss as little school as possible," Sawyer says. And so, even though Miguel underwent three operations, he kept up with his schoolwork and stayed on track.

As a hematologist and director of the center, it is Valentino's role to oversee overall treatment and administer an individualized infusion program that prevents, stops or limits uncontrolled bleeding in his patients. For milder forms of hemophilia A, this means injection or inhalation of medications that release hidden reservoirs of clotting factor. Other forms of the disease, like Miguel's, require intravenously infusing concentrates of the missing blood factor. What is given, as well as how it is given, how often and how much, depends on the severity of the disease, the level and site of bleeding and the size of the patient. Some patients receive treatment regularly as a preventive measure, while others have treatment only after a bleeding episode.



Photography by Katherine Smedra

Leonard Valentino, MD, and his patient Jabari Taylor.

A: *A healthy knee.* In a healthy knee, bones are padded by cartilage. Between the bones and joints are synovial cells, which produce a fluid that helps the bones move smoothly against one another. Blood nourishes these cells.

B and C: *A knee after many untreated bleeds.* When joints bleed, the blood leaks into the joint space, causing the capsule around the joint to stretch and the joint to swell. If bleeding stops, enzymes in the synovial cells consume the blood. With repeated bleeds, scar tissue begins to form, reducing the space within the joint and making bending difficult. Sometimes the enzymes don't know when to stop and they begin to eat away cartilage, meaning there is less padding between the bones. This can lead to a condition known as hemophilic arthritis.

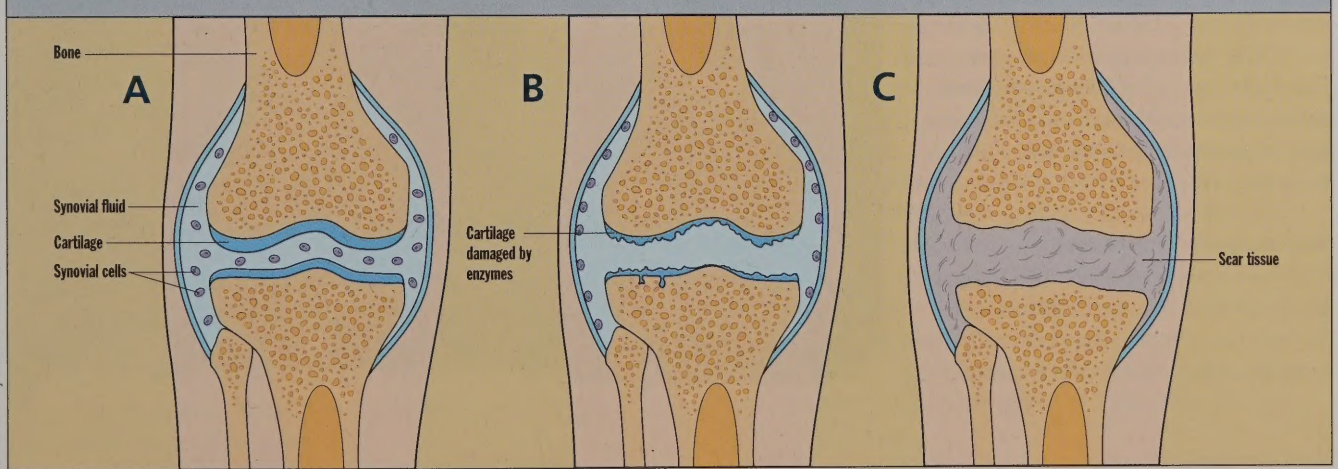
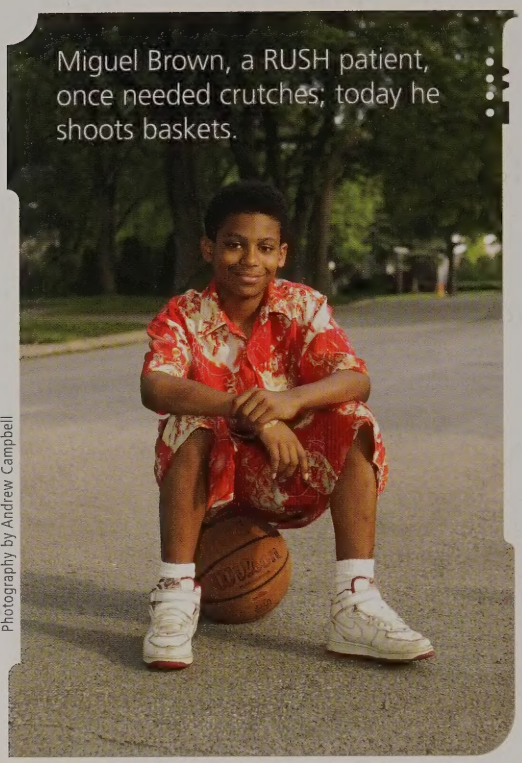


Illustration by Kristen Wienandt



Miguel Brown, a RUSH patient, once needed crutches; today he shoots baskets.

Photography by Andrew Campbell

For patients like Miguel, who have had repeated or untreated bleeds, the tissue surrounding the joints can be damaged (see illustration on p. 5). This is where surgery comes in. With hemophilia patients, uncontrolled bleeding during surgery is a concern. But Valentino ensured that Miguel received the appropriate treatment to avoid bleeding problems during his three surgeries — arthroscopic procedures called sinovectomies, which removed inflamed tissue in his knees, ankle and elbow.

"Dr. Valentino is so good at giving patients the right amount of clotting factor before surgery that if you put two patients next to each other in the operating room — one with the disease and one without — I wouldn't even be able to tell the difference," Sawyer says. Even after surgery, the teamwork continues, with anesthesiologists providing special postoperative care and pain management.

Key players: The parents

But those with degrees after their names aren't the only members of the team. Today, a key player is the parent. Thirty years ago, much of the care for a child with hemophilia took place in the hospital. Now the majority of these kids receive their clotting factor infusions at home. And they often receive it from those they know and trust most: their parents.

Thanks to technology available through RUSH, parents like the Browns are not alone in caring for their children at home; they are supported by the team back at RUSH. With the help of a Palm Pilot and some cutting-edge software, the Browns are in constant communication with Valentino and the team. At home or on the go, Miguel's mother, Elvira, can input information about the infusions her husband gives Miguel and e-mail Valentino with her questions. Valentino, in turn, can access the latest information about his patient and respond to Elvira's questions. "I have everything I need right here," Elvira says pointing to her Palm Pilot. "You can't imagine how helpful this is." Miguel's bleeds can now be more effectively controlled so that further damage will not occur.

Evolution of care

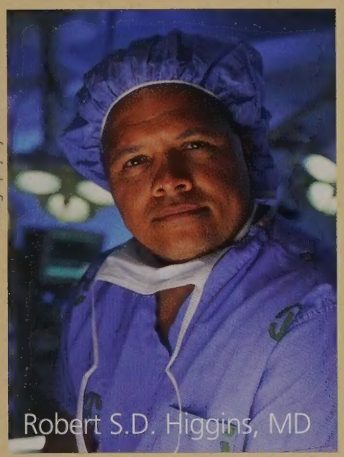
Ongoing communication is just one of the many ways RUSH supports parents, who are often overwhelmed by the stress of caring for a child with hemophilia. "Divorce is a big problem," says Margaret Telfer, MD, a hematolgist at RUSH who has worked with hemophilia patients and their families for more than 35 years. "Often, fathers blame mothers because it is the mother who carries the gene that causes the disorder. In addition, the financial burden is often tremendous." At RUSH, parents meet with a psychologist to discuss such emotional issues and with a social worker to talk about financial options. "Much of the time spent in clinic is spent with the parents," Valentino says.

The Browns readily admit that Miguel's hemophilia has brought a lot of fear and anger into their lives, but life is getting better. That's not to say that they don't have their worries. Their current dilemma: How will Miguel react if the basketball coach won't let him play in the fall? That concern, however, is one faced by all parents of aspiring Michael Jordans. It's normal. And for families dealing with hemophilia, feeling normal can feel pretty good. •

The Brown family (left to right: David Jr., David, Miguel, Emmanuel, Elvira and Marco) found both medical expertise and emotional support at RUSH.

Organ Donation: Addressing a Vital Need

Inteview by Judy Germany


Photography by Kevin Horan

Robert S.D. Higgins, MD

In the United States, 75,000 to 80,000 people are currently on transplant waiting lists for organs. But each year — because of the scarcity of donor organs — only one third of those who need transplants will get them. *RUSH Record* recently sat down with RUSH's new chairman of cardiovascular-thoracic surgery, Robert S.D. Higgins, MD, to discuss the state of organ donation today. Throughout his career, Higgins has taken a special interest in organ distribution. He previously served on the board of directors of the United Network of Organ Sharing (UNOS), which generates and maintains the transplant waiting list, and he currently sits on the Secretary of Health and Human Services Advisory Committee on Transplantation, which addresses transplant-related issues and concerns at the national level.

How are organs distributed — who gets them and why?

It's a very complicated sequence of matching need with the availability of organs. If you have a diagnosis of end-stage heart, liver, kidney or lung failure, as determined by a physician, you are entered onto a recipient list that has certain pre-defined criteria. Local organ procurement agencies, such as the Gift of Hope in Chicago, help manage the organ donor lists at the local and regional levels. They contact UNOS when an organ becomes available, and UNOS generates a list of potential recipients — the people who are the right blood type, height and weight and who have been waiting the longest or who are the sickest. The local agency then notifies the physician that the patient is being offered an organ.

Do famous or wealthy people have a better chance of getting an organ?

There is no favoritism in the system as it stands now. These listing criteria and practices and supervision of the process have evolved over the last 20 years. So everybody has an equal shot at getting an organ once they get on the UNOS list. Some medical issues do come into play — for instance, heart or liver failure patients who are expected to die within 30 days get priority over people who have chronic stable heart failure or liver disease. But there isn't any way to jump the list except by the criteria of how sick you are, what your blood type is and how rare it is, and special medical circumstances.

Do lifestyle factors influence who gets organs?

I personally don't see that our job is to judge people based upon past mistakes, but we are concerned about people who show an inability to change the behavior that led to the organ damage. If a person is actively smoking or drinking, for example, we consider that as a behavior issue that must be changed before that person would be considered for a transplant. There are so many people who would do anything to get an organ that it doesn't make sense to offer organs to those who aren't willing to do whatever it takes to improve their health. Patients must also demonstrate compliance with the complex regimens — exercise, medications and diet — prescribed by their physicians.

Are there any disparities between who donates organs and who needs them?

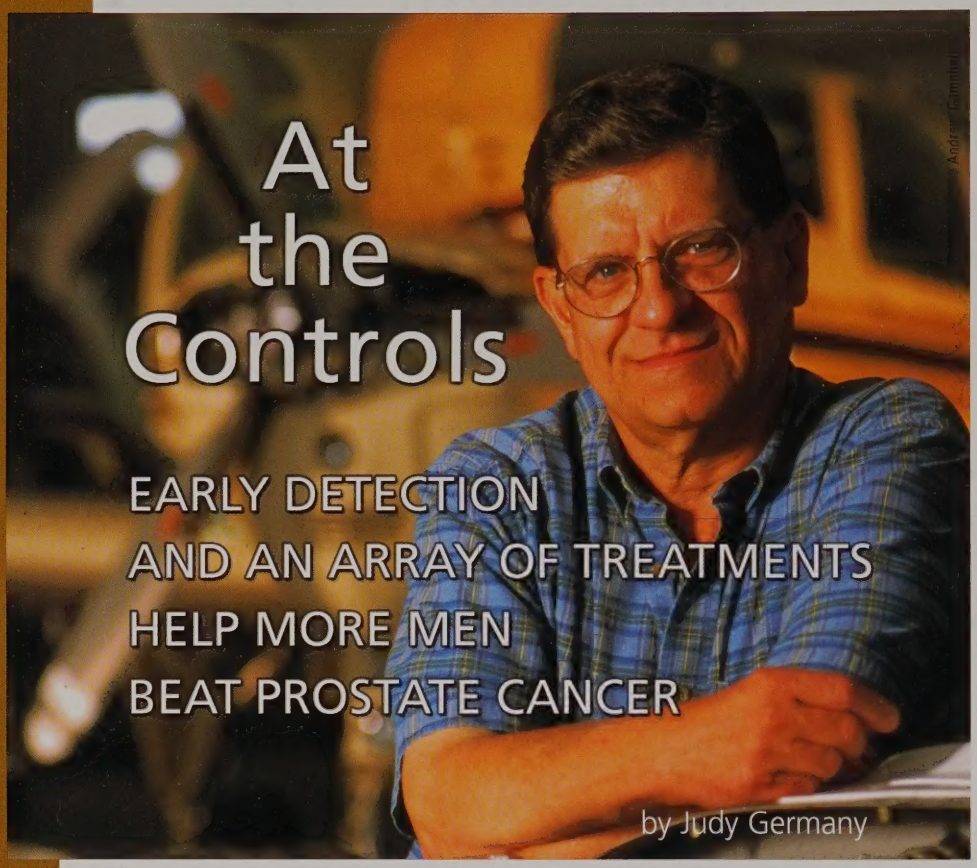
Yes. For instance, African-Americans make up 35 percent of the waiting list for kidneys, yet they represent only 12 percent of kidney donors. They are donating kidneys proportionate to their representation in the population, but their need is higher, so there's a disparity. And unlike other organs, kidneys are matched up based on common genetic markers. Because the system is set up to allocate organs based on genetic similarities rather than compatible blood types, it's likely that African-Americans will wait longer for kidneys than other ethnic groups.

Is anything being done to address this problem?

Based on a recommendation by the Advisory Committee on Transplantation, UNOS is changing its allocation policies for kidneys to allow compensation for that mismatch. There are also a couple of programs, including the Minority Organ Tissue Transplant Awareness Program, a 15-city program out of Washington, D.C., that are trying to bring a culturally appropriate message about organ donation and transplantation to urban environments to bolster organ donation among minority populations.

Why aren't there more organ donors?

A lot of people simply haven't discussed it with their families; they haven't signed an organ donor card or put it in their will, so their families are not prepared to face the issue. People — especially young people — don't expect tragedy to occur, so they don't plan for it. But having a conversation with your family about organ donation is a healthy thing. It allows them to have some guidance about your wishes should something happen to you. Of course, organ donation may not be for everyone; it's OK to say no. But everyone should have the choice to donate organs if they wish. Quite simply, it's the greatest impact that any person can have. It's an extraordinary gift, and it really speaks to the selflessness of the people who have donated their organs so that others could live. •



At the Controls

EARLY DETECTION AND AN ARRAY OF TREATMENTS HELP MORE MEN BEAT PROSTATE CANCER

by Judy Germany

Ron Micek isn't happy standing still. In fact, you'll rarely find him lounging on his couch or napping on the beach. If he's not in the office, he's likely to be at DuPage Airport, where he keeps his sleek new airplane. If it's the weekend, you'll probably find him on the fairway or driving his Porsche in a rally. At 62, the age when many people are starting to slow down, he still keeps a schedule that rivals a teenager's. And he wouldn't have it any other way.

That's why three years ago, when prostate cancer threatened his life — and his lifestyle — he took control of his health, ensuring that he'd be able to remain on the go for years to come.

Each year, 30,000 men die from prostate cancer; it's the second leading cause of cancer death in men. But thanks to better methods of early detection and a variety of treatment options — all of which are available at RUSH — today more men like Ron Micek are surviving this deadly disease.

Turbulence ahead

As is common, Micek's prostate cancer surfaced when he was in his 50s. Although instances do occur at earlier ages, it's rarely seen in men under the age of 40. But as a man ages, the prostate starts to be a troublemaker. It can become obstructed, affecting urinary habits, and it eventually becomes cancerous. "If a man lives long enough, the question isn't whether he will get prostate cancer," says Jerome Hoeksema, MD, a urologist at RUSH, "it's *when* he'll get prostate cancer."

Why, then, can't the prostate be removed at an early age to prevent cancer from developing? "What many don't realize is that the prostate gland is essential for reproduction; it produces nearly half of the fluid the body uses to deliver sperm during sexual intercourse," says Lawrence Levine, MD, a urologist at RUSH. "and because of its location, removing it affects bladder and penile function."

The good news is that unlike other types of cancer, prostate cancer tends to grow slowly. So when it is diagnosed in the early stages, there is usually time to treat it before it becomes life-threatening. However, since prostate cancer causes symptoms — such as pain and difficulty urinating — only when the disease has advanced beyond the point where it is curable, doctors like Hoeksema and Levine encourage patients to get their prostates screened as part of a routine physical.

On the radar

Men who benefit from screening are those in their 50s and 60s, who have a life expectancy of 10 or more years and will likely live long enough to be affected by the cancer, and those at greatest risk for prostate cancer — African-American men and men with a family history of the disease (a father or brother).

The best way to screen is with a digital rectal exam and a serum blood test, which detects elevated PSA levels, starting around age 50. These simple evaluations can be done by a primary care physician or a urologist. If the PSA is elevated, a follow-up biopsy may be done to determine whether cancer is the cause.

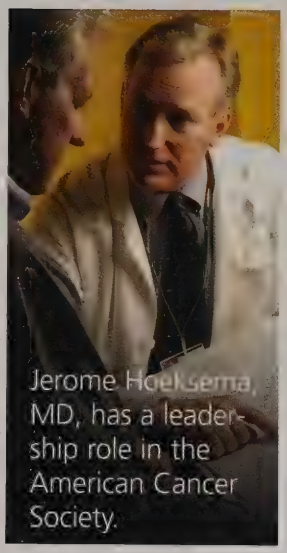
Micek, who started getting tested every two years in the mid 1980s, didn't have problems until 1999, when his PSA level was significantly elevated. Fortunately, the biopsy was negative. But just a year later, the PSA had risen even higher; this time the biopsy came up positive for cancer.

Flight plan

Like the thousands of other men each year who learn they have the disease, Micek had some important decisions to make about his treatment.

After a diagnosis of prostate cancer,

patients and physicians work together to select the best course of action. "Do we take steps now to avoid problems down the road, or do we take a watch-and-see approach? The answer depends on how aggressive the cancer is, the man's age and his priorities for quality of life," Hoeksema says.



Photography by Andrew Campbell

Jerome Hoeksema, MD, has a leadership role in the American Cancer Society.

As president of the Board of Directors of the Illinois Division of the American Cancer Society, Hoeksema is a well-respected clinician who, along with his colleagues at RUSH, offers his patients all of the most up-to-date treatments. Radical prostatectomy, a surgical procedure in which the entire prostate is removed, is often recommended when the cancer is confined to the prostate and for younger men who are better able to tolerate surgery. Localized external or internal radiation therapy can be used for most slow-growing cancers, whether or not they have spread beyond the prostate. And men who have more advanced disease may benefit from hormone therapy.

Another option is cryosurgery, in which the prostate is frozen to –40 degrees, wiping out the prostate and, with it, the cancer. RUSH was the first hospital in the city to offer cryosurgery. "It's a highly effective therapy," says Charles McKiel, MD, chairman of the Department of Urology at RUSH. "The benefits are that it's noninvasive and can be used as the only therapy regardless of how aggressive the cancer is, whereas radiation alone isn't effective for the most aggressive cancers, and surgery can't eliminate cancers that have spread beyond the prostate."

Micek, whose cancer was confined to the prostate, chose surgery. "I had an awful lot of living left, and I didn't want to be worrying about the cancer in 10 years," he says. "I wanted to get rid of it so I could have peace of mind."

For that peace of mind, he was willing to risk the possible side effects of treatment, the most serious being erectile dysfunction and incontinence. At RUSH, these problems are addressed by renowned experts in urological disorders. For example, although treatments for prostate cancer cause erectile dysfunction in a large percentage of men — which affects them emotionally as well as physically — men in their 40s, 50s and 60s can often regain at least some of their potency with Viagra or other more aggressive forms of therapy. Full bladder control can usually be preserved in younger patients and those who are fully continent before treatment, or it can be restored with surgery.

"In choosing a treatment each patient brings his own concerns and values into the decision-making process," McKiel says. "They must weigh the potential risks of each option against their priorities."

For Micek, being cancer-free and continent so he could enjoy his active lifestyle were of the utmost importance. Fortunately, incontinence has not posed a problem. As for the other side effect of surgery, he has accepted it and hasn't sought treatment. "There are things we can do to restore potency," says Levine. "But a lot of men, like Ron Micek, aren't as concerned about their sexual function. They just want the cancer out."

In the pilot's seat

Micek is extremely happy with the choices he's made — starting with his decision nearly two decades ago to start making prostate cancer screenings a part of his health routine.

Cancer-free since 2000, he continues to embrace each day with gusto. He's living proof that although prostate cancer should not be taken lightly, with the right approach it can be conquered.

For more information about prostate cancer screenings and treatment, please talk to your doctor or call 888-352-RUSH. •

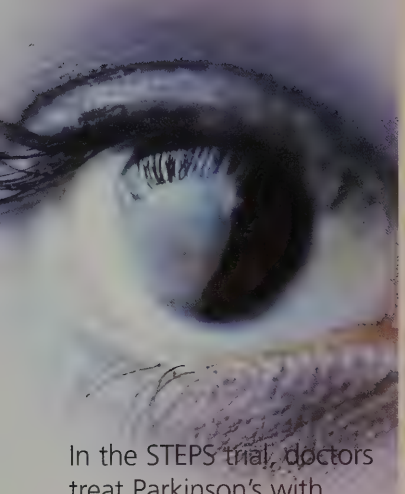
AN OUNCE OF PREVENTION

While there are effective methods of diagnosing and treating prostate cancer, there is currently no way to keep men from getting the disease. That's why RUSH's Department of Preventive Medicine is focusing its research efforts on prostate cancer prevention. RUSH is one of 400 centers participating in SELECT, the nation's largest-ever prostate cancer prevention study, which seeks to learn whether the dietary supplement selenium and the antioxidant vitamin E can protect against prostate cancer.

RUSH already has more than 260 volunteers for the trial and ranks an impressive fourth in the nation in the recruitment of African-American men, a population at particularly high risk for prostate cancer. "We're excited to have so many patients enrolled in this groundbreaking trial. We've already surpassed our goal, and we still have a year of recruitment left," says Henry Black, MD, principal investigator for the Chicago SELECT group and chairman of the Department of Preventive Medicine at RUSH.

Previous research suggests that vitamin E and selenium might help to prevent prostate cancer. "Though we now have effective ways to find and treat prostate cancer, preventing it is the best approach," Black says. "Should these simple and safe ways work, we're way ahead. If they are not effective, we will need to explore other strategies for prevention."

For more information about SELECT, please call (800) 966-3644.



In the STEPS trial, doctors treat Parkinson's with cells from the eye.

Research in Parkinson's: The eyes have it

New research in Parkinson's disease is focusing on an unusual place: the eyes. In a study called STEPS, RUSH is testing a new therapy in which retinal pigment epithelial (RPE) cells — found in the eye — are implanted in the brain to alleviate symptoms of Parkinson's disease, such as tremors, slowness of movement, rigidity and loss of balance.

Parkinson's disease is a progressive, chronic neurological condition that causes the cells to degenerate and reduce production of an important neurotransmitter called dopamine. When the level of dopamine decreases significantly, messages from the brain get interrupted or delayed, resulting in problems controlling movement. RPE cells produce levodopa, which could help reverse the decline of dopamine levels in the brain and alleviate symptoms.

A similar treatment performed in an earlier study helped improve motor function by an average of 41 percent 24 months after treatment. In addition, there were no safety concerns two years after the treatment, says Roy A.E. Bakay, MD, a neurosurgeon at RUSH who performed the surgical implantation for the original study.

"Current medical therapies provide relief from symptoms for many years, but then the effects of medication wear off," says Leonard Verhagen, MD, the principal investigator for the STEPS study. "This research is promising because it may ultimately provide Parkinson's patients with a new method to achieve continuous control of motor function."

To learn more, call 1-866-STEPS-03 (1-866-783-7703).

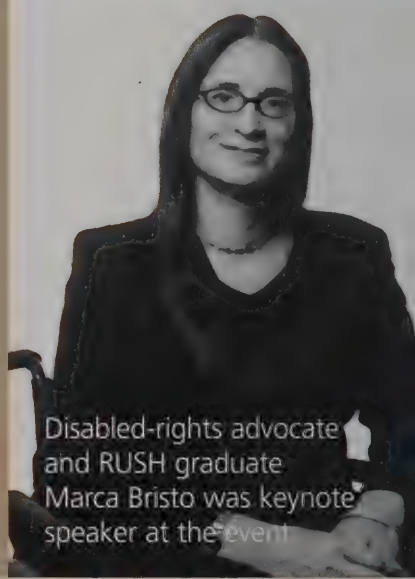
Nursing disabilities conference

Nursing has traditionally been a profession closed off to many people with disabilities because of the many physical demands of the job.

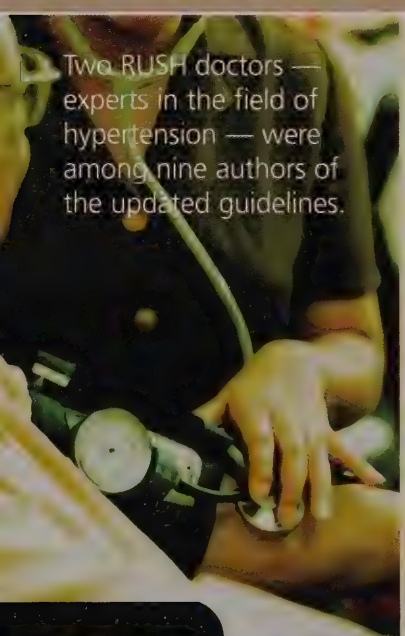
But nursing leaders at RUSH are trying to challenge this perception. This past April, the RUSH University College of Nursing hosted a two-day conference on "Students With Disabilities: Nursing Education and Practice," opening up a dialog on opportunities and challenges for people with disabilities who are academically qualified to enter the nursing profession.

The conference featured nursing, health care and disability-rights leaders from across the nation exploring topics such as educational curricula, policy and workplace accommodations for people with disabilities.

"Nursing has traditionally been a profession that was thought to require physical strength," says Kathleen G. Andreoli, DSN, RN, dean of RUSH University College of Nursing. "But in many areas, the physical demands aren't as great as they once were, while the mental demands — assessment, problem solving, education, counseling and evaluation — have become of greater importance. And based on this conference, I can say that people with disabilities are more than ready to take on these demands."



Disabled-rights advocate and RUSH graduate Marca Bristo was keynote speaker at the event.



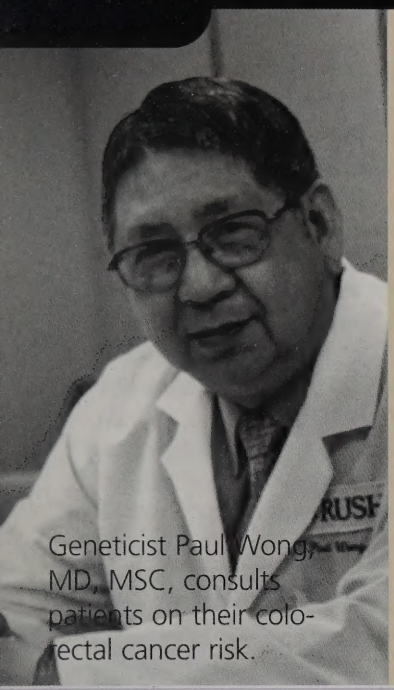
Two RUSH doctors — experts in the field of hypertension — were among nine authors of the updated guidelines.

RUSH plays crucial role in developing new hypertension guidelines

A recent issue of the *Journal of the American Medical Association* featured revised guidelines for physicians to use in evaluating and treating high blood pressure (i.e., hypertension). RUSH physicians George Bakris, MD, and Henry Black, MD, who is the associate vice president for research and chairman of the Department of Preventive Medicine at RUSH, were among the authors of the guidelines, which were sponsored by the National Institutes of Health and will be used by doctors around the country.

The updated guidelines create a new category of risk called prehypertension, which includes about 45 million people, or 22 percent of adults in the nation. The new category includes blood pressure levels once thought to be normal, which have more recently been linked to increased risk for cardiovascular damage. The guidelines also recommend medications and lifestyle changes to manage high blood pressure.

"These guidelines are important because hypertension is the greatest risk factor for a number of medical problems — including cardiovascular disease, diabetes and stroke — and it is the most common reason people need to see a doctor," Black says. "This is considered the most authoritative set of guidelines for hypertension in the nation, if not the world."



Geneticist Paul Wong, MD, MSC, consults patients on their colorectal cancer risk.

Colon cancer's family tree

Do you know if your father or sister have or had colorectal cancer? Do you know how old they were when they were diagnosed with the disease?

If you don't, you should, says Marc Brand, MD, surgical director of the Sandra Rosenberg Registry for Heredity and Familial Colon Cancer at RUSH. "Family history of colorectal cancer can help indicate who is at risk," Brand says. "And it can provide physicians with valuable information that will guide them in developing a screening plan designed to detect the disease in its early stages. If caught early, this disease can be treated effectively."

The Sandra Rosenberg Registry for Heredity and Familial Colon Cancer at RUSH — the only registry of its kind in Illinois and one of 32 in the country — was created in Mrs. Rosenberg's memory with donations from her family and friends to provide the best care possible to patients and families with a history of colorectal cancer. It also educates the community about the importance of family history of colorectal cancer and conducts research in the understanding and management of families with a history of this disease. This registry is a team of health care professionals — which includes surgeons, geneticists, psychiatric counselors and nurses. They work together to provide families what they need to know about screening, surveillance and treatment as well as offer emotional support.

For more information, please call (312) 942-6500

RUSH andrology lab battles male infertility

Reproductive problems like low sperm count affect tens of thousands of men each year. In fact, it may be surprising to learn that 20 to 35 percent of the time, the man — not the woman — is the cause of infertility.

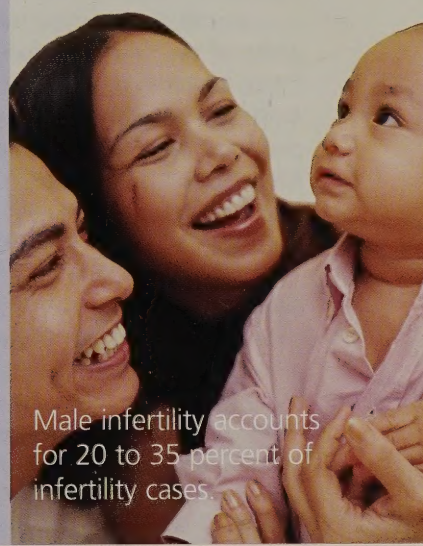
Causes of male infertility can range from overactive semen glands to medications and drug use, says RUSH fertility expert Richard Rawlins, PhD. Solutions may be as simple as choosing briefs over boxers or getting testosterone injections, but sometimes surgery, artificial insemination or in vitro fertilization is required.

"Men just assume that if they're able to have sex, they can produce viable sperm, and that isn't necessarily the case," Rawlins says. "But there's a lot we can do to help."

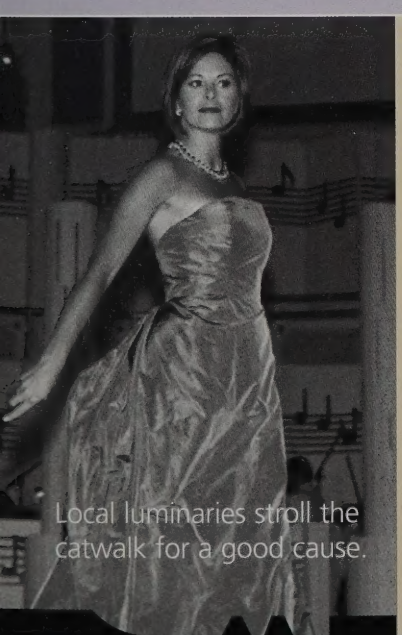
Thanks to the new clinical andrology lab at RUSH, which opened May 5, Rawlins and his colleagues can perform comprehensive diagnostic testing, artificial insemination, and in vitro fertilization and bank semen for future use.

"Doctors refer their patients to the lab for semen analysis and can then design treatment plans based on what we find out," explains Susan Tarchala, BS, TS, the lab's technical supervisor. "We look at the male side of reproduction as part of a bigger picture in solving infertility."

For more information, call (312) 563-4024.



Male infertility accounts for 20 to 35 percent of infertility cases.



Local luminaries stroll the catwalk for a good cause.

The face of fashion

Coming this September 18 to a runway near you: It's the 77th annual RUSH-Presbyterian-St. Luke's Medical Center Woman's Board Fashion Show, starring a cast of Chicago's brightest luminaries and celebrities sporting the hottest brands from some of your favorite stores, like Marshall Field's, MaxMara, Nordstrom, Prada, Ralph Lauren, Saks Fifth Avenue, Tiffany & Co. and more.

This year's show, "The Face of Fashion," will support the RUSH Craniofacial Center, which applies a multidisciplinary approach to evaluating and treating patients with all types of craniofacial malformations, including Crouzon's syndrome and cleft lip and palate.

The event, held at Chicago's Symphony Center, is the nation's largest and longest-running charity fashion show.

For more information, call (312) 942-6513 or visit www.thefashionshow.org.

Appointments

Administration

Philip Bonomi, MD, has been appointed director of internal medicine's Division of Hematology, Oncology and Bone Marrow Transplantation. Head of the Section of Oncology since 1993 and acting head of the division since May 2002, Bonomi, the Alice Pirie Wirtz Professor of Oncology, is author or coauthor of more than 250 papers, abstracts and book chapters.

Kenneth Boyer, MD, has been named chairman of pediatrics and has been appointed to the Woman's Board Chair of Pediatrics. An internationally renowned pediatric infectious disease specialist, Boyer came to RUSH in 1986 to head the Section of Pediatric Infectious Diseases. Since 1995 he has also directed the pediatric HIV programs at Stroger Hospital and the CORE Center. Prior to joining RUSH, Boyer was director of the division of pediatric infectious diseases at Michael Reese Hospital and Medical Center. He has been acting chairman of pediatrics since July 2001.

John Brill, MD, has been named associate chief information officer (CIO) and associate vice president at RUSH. Brill came to RUSH in 1985 as a resident in internal medicine and was appointed assistant professor in 1992. While pursuing his medical degree at Ohio State University, Brill studied medical informatics — the use of information technology to improve and streamline the delivery of health care — at the University of Pittsburgh.

Peter Butler has been named president and CEO of RUSH North Shore Medical Center and vice president at RUSH. Since previously serving as president of RUSH North Shore from 1987 to 1990, he has been vice president of administrative affairs at RUSH, senior vice president and chief administrative officer of the Henry Ford Health System in Detroit, Mich., and president and CEO of Methodist Health Care System in Houston, Texas.

Robert S.D. Higgins, MD, has been named professor and chairman of cardiovascular-thoracic surgery at RUSH and has been named to the Mary and John Bent Chair of Cardiovascular-Thoracic Surgery. Higgins came to RUSH from the Medical College of Virginia, where he directed the division of cardiothoracic surgery. He previously was surgical director of thoracic organ transplantation at Henry Ford Hospital and director of pediatric cardiac transplantation at the Children's Hospital of Michigan. For more on Higgins, see the story on page 7.

Catherine Jacobson has been named senior vice president, chief financial officer and treasurer for RUSH. Jacobson joined RUSH in 1996 as associate vice president for program evaluation and chief compliance officer. She previously was vice president for finance at RUSH Prudential Health Plans, and she served in a variety of executive financial and administrative capacities at RUSH Health Plans prior to their 1993 merger with the Prudential Health Plan. Jacobson sits on the board of the RUSH-Presbyterian-St. Luke's Health Associates physician/hospital organization and serves as treasurer on the CORE Foundation's board.

Lac Van Tran has been named senior vice president and chief information officer (CIO) at the Medical Center and associate dean for information technology at RUSH University. Tran has previously served as CIO at Methodist Health Care System in Houston, Texas, Children's Hospital in Boston, Mass., and the Health Sciences Center and University Hospital and Medical Center at Stony Brook, N.Y.

Endowed Chairs

David Bennett, MD, professor of neurological sciences and director of the RUSH Alzheimer's Disease Center, has been appointed to the Robert C. Borwell Chair of Neurology. A 1984 graduate of RUSH Medical College, he is a nationally recognized researcher of the diseases and conditions — Alzheimer's, Parkinson's, amyotrophic lateral sclerosis (also known as Lou Gehrig's disease) and stroke — that contribute to the decline of cognitive and motor function so often seen in the elderly.

James Calvin, Jr., MD, professor of internal medicine, director of the Section of Cardiology and medical director of the RUSH Heart and Vascular Institute, has been appointed to the James B. Herrick, MD, Chair of Heart Research.

Rosalind Cartwright, PhD, professor and chairman of psychology and

RUSH Receives Grants From The Robert Wood Johnson Foundation

In the last year, two young RUSH physicians have received prestigious research grants from the Robert Wood Johnson Foundation. With support from the Foundation's Generalist Physician Faculty Scholars Program, **Elizabeth A. Jacobs, MD, MPP,** assistant professor in general internal medicine, will study how the level of trust in the health care system among minorities affects the health of those same groups. The overall goal of her project is to help develop strategies that will improve the health in minority communities. **Cheryl Rucker-Whitaker, MD, MPH,** assistant professor in preventive medicine, is using her grant through the Foundation's Minority Medical Faculty Development Program to spearhead grassroots health education. She believes that by giving community leaders the knowledge and tools they need to teach others about taking control of diet, exercise and other aspects of their health, every member of a community can help himself or herself to a healthier life.•

founder and senior clinician of RUSH'S Sleep Disorder Service and Research Center, has been appointed the inaugural holder of the James A. Hunter, MD, University Chair.

Leyla deToledo-Morrell, PhD, and **Jeffrey Kordower, PhD,** have both been appointed to the Jean Schweppe Armour Chair of Neurology. DeToledo-Morrell, professor of neurological sciences and psychology, is one of the world's leading experts on the anatomy and physiology of neurological illnesses. Kordower, professor of neurological sciences, director of the Section of Neurosciences and of RUSH's Research Center for Brain Repair, is working to establish new therapies for Parkinson's disease and Huntington's disease.

Jacob Fox, MD, chairman of neurological sciences, provost of RUSH University and senior vice president at the Medical Center, was appointed the inaugural holder of the Joseph and Florence Manaster Foundation Chair of Multiple Sclerosis.

Larry Goodman, MD, president and CEO, has been appointed to the James A. Campbell, MD, Distinguished Service Chair. Goodman, who first came to RUSH as a resident in 1976, has served RUSH Medical College as assistant dean of clinical curriculum, associate dean for medical student programs and, from 2000 to 2002, as dean. He was also the Medical Center's director of interinstitutional affairs and senior vice president for medical affairs. He was named president and CEO in January 2002.

Richard F. Loeser, Jr., MD, professor of medicine in the Department of Internal Medicine's Section of Rheumatology and professor of biochemistry, has been named the inaugural holder of the Robert S. Katz, MD – Joan and Paul Rubschlager Presidential Chair in Osteoarthritis Research.

John P. Lubicky, MD, professor of orthopedic surgery at RUSH and chief of staff at Shriners Hospital for Children – Chicago, has been named the inaugural holder of the Ronald L. DeWald, MD, Chair in Spinal Deformities.

Elliot Mufson, PhD, professor of neurological sciences, director of the Section of Neurobiology and co-director of the RUSH Brain Bank, has been named to the Alla V. and Solomon Jesmer Chair in Aging.

Jonathan Rubenstein, MD, who chairs the division of ophthalmology at RUSH North Shore Medical Center and directs RUSH's Section of Refractive Surgery, has been appointed the inaugural holder of the Deutsch Family Chair of Ophthalmology.

Trustees

Five new trustees have been elected to the Board of Trustees of RUSH.

Howard M. Dean is the retired chairman of the Dean Foods Company, which he joined in 1965 as its internal auditor. He was named chief executive officer in 1987 and chairman in 1989. **William K. Hall** is the co-founder, chairman and CEO of Procyon Technologies, Inc., a Chicago-based holding company supplying the global aerospace and defense industry. **William R. Hayden, MD,** who joins the board as the new president of RUSH's medical staff, is associate chairman of the Department of Pediatrics, associate professor of pediatrics and director of the Section of Pediatric Critical Care at RUSH and director of the RUSH – Stroger Hospital Pediatric Critical Care Program. **John W. Higgins** is chairman, CEO and founder of Higgins Development Partners, a national real estate developer of office, industrial and mixed-use projects. **William H. Strong** is vice chairman of investment banking and a managing director of Morgan Stanley in the Chicago office, where he is responsible for investment banking activities in Chicago, Houston, Los Angeles, Montreal, San Francisco and Toronto.

RUSH Welcomes Transplant Surgeon S. Forrest Dodson, MD

S. Forrest Dodson, MD, has been named director of the Division of Abdominal Transplantation at RUSH, ushering in a new era for abdominal transplantation at the Medical Center.

Dodson came to RUSH from the Ochsner Clinic in New Orleans, La. He was previously associate professor in the Department of Surgery's Transplant Division at the University of Pittsburgh School of Medicine.

In the last decade, Dodson, who trained with transplant pioneer Thomas E. Starzl, MD, has performed more than 800 liver transplants. In Dodson's first year as director of abdominal transplantation at RUSH, the division has more than quadrupled the number of liver transplants it has performed.

Dodson specializes in liver transplantation — including living related and split liver transplants and combined liver-bone marrow transplants — and he is an expert in treating even the most complex cases. He is also looking at ways to improve the outcomes for transplant patients to give them better quality of life.

"We've seen tremendous advances in transplant surgery during the past ten years. Patients are living longer and they are leading more active lives," Dodson says. "I believe we'll be able to extend the benefits of transplantation surgery to even more patients in the coming years."•

RUSH Calendar of Community Wellness Events

All events are free, and free or discounted parking is available. For more information on these events, please visit our Web site at www.rush.edu. To register, call (888) 352-RUSH.

September

American Heart Walk: Walk, donate or sponsor a walker.
Friday, September 12, 2003; 11:30 a.m.
Grant Park, Chicago
To register, contact **Suzanne Smith at (312) 942-7164** or **Stacie Devine at (312) 942-7887.**

What Babies Say Before They Can Talk: Seminar and book signing with RUSH child psychiatrist, Paul Holinger, MD
September 17, 2003; 6 p.m.
RUSH Searle Conference Center
1725 W. Harrison, Chicago

For Men Only: A Discussion on Men's Health
Thursday, September 25, 2003; 5:30 p.m.
Neighborhood Family Practice
1550 S. Indiana St., Chicago

Family Health & Fitness Day
Saturday, September 27, 2003; 10 a.m. to 1 p.m.
Union Station, Multiplex,
444 West Jackson, Chicago

Coming in October ...

Running Clinic at RUSH: Let RUSH help you prepare for the Gimmee Shelter 5K or any race.
Saturday, October 4, 2003

Caring for Lower Back Pain: RUSH experts instruct you on how to care for lower back pain and reduce your risk.
Thursday, October 30, 2003

Cooking and Eating for a Healthy Heart: Get tips from a prominent Chicago chef and a RUSH preventive cardiologist, and sample the taste treats from the demonstration.
Date: TBD

Coming in November ...

Gimmee Shelter 5K Run/Walk
Sunday, November 2, 2003

Healthy Holiday Eating: Learn how to prepare holiday meals that won't add holiday pounds.
Date: TBD

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